

of these races when in full health have a thick layer of fat under the skin all over the body, and this, too, reduces heat loss. In cold climates, too, all extremities are short, so reducing the danger from frostbite; the nose is squat and protected by forwardly placed and fat-covered cheekbones; feet, hands and fingers are short and broad, and the eyes are protected by fatty eyefolds. Examples of such races are the Esquimaux, Tungus and Chukchi. In complete contrast is the body build of races adapted to extreme dry heat in tropical deserts. Here body surface is at a maximum in relation to body volume, limbs are long in relation to the trunk, the trunk is slender and flat; this facilitates heat loss by the evaporation of sweat. Examples of races adapted to hot dry climates are the aboriginal inhabitants of North and Central Australia, the Tuareg of the Sahara, and Somalis of the desert regions of the Horn of Africa.

A dark skin absorbs visible radiation better than a light one and dark-skinned races are found largely among those exposed to excessive light. Light-skinned races now inhabiting areas with high insolation are recent arrivals, and their adaptation may be regarded as incomplete. Black skins may have other useful properties; many British service-men had to be sent home from tropical theatres of war because they were unduly susceptible to skin disease in hot climates. The evolution of blondism is more difficult to explain. Dark eyes probably have a higher resolving power under conditions of intense illumination, but it is not clear what advantages there are in the possession of blue eyes in a temperate climate.

There are many other features in which races differ markedly but which have no obvious adaptive value, for example the blood groups. These may be merely due to chance, but it is possible that genes such as the blood-group genes have other effects which affect their possessor's adaptation to the environment.

Civilization makes new demands on the organism. There is evidence that different individuals and different races differ in their susceptibility to infections, and, though little

is known of the hereditary factors concerned in this, selection for such factors must be intense in overcrowded cities with poor sanitation.

As men take charge of their own evolution they may well deliberately accelerate this process of adaptation to local environment, but if possible it might well be better to attempt to develop men and women of a type capable of living and reproducing in almost all climatic conditions.

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## BIOGRAPHY

**Harrod, R. F.** *The Life of John Maynard Keynes*. London, 1951. Macmillan. Pp. 674. Price 25s.

JOHN MAYNARD KEYNES was born in 1883, in good time to be Chancellor of the Exchequer in a Liberal Government in the nineteen-twenties. But when he was twenty-one the old order changed, the inspired gradualness of British reform was set—not indeed at naught but very much back by tragic circumstances—and Keynes became a rather unusual kind of free lance, being himself a most unusual person.

There is something to be said for some notices of this book on an economist by an economist not being written by economists. For economists themselves are not unanimous in their estimates of Keynes' influence, and there was a good deal to him besides his professional activity. A figure at Cambridge, a patron in Bloomsbury of arts and letters, an important person on the highest official level, a man prone to all sorts of *éclairs de l'intelligence*, wherever he happened to be he heightened the intellectual tension and lifted the occasion out of banality. He had the luck to be "the first son of the marriage of a Cambridge Fellow with a member of Newnham." Another kind of luck gave him as accessible contemporaries one of the most able, versatile groups of men and women in English cultural history, among whom the give and take of intimate friendship was bound to operate fertilizingly on all concerned. The effects of excellent heredity have seldom been more strikingly illustrated

than by their achievements and collective prestige. Mr. Harrod's book owes its length and weight partly to the need he felt to do more than sketch in this human environment, and he even ventures to speculate on the rank to which those luminaries are respectively likely to be elevated by posterity. Of reproaches brought against them only one, in the opinion of the present writer, is really serious. It is that they did not have enough children.

What any layman reading Mr. Harrod's conscientious and often difficult book can understand is that Keynes was bound to try to reconcile Liberal principles with the urgent new need for continuous governing by government. The idea that governments should always be actively governing is, when we come to think of it, fairly new. In 1926 in *The End of Laissez-Faire*, having enunciated his compromise in the shape of a principle that "the important thing for government is . . . to do those things which at present are not done at all", Keynes went on to suggest three fields in which there was scope for comprehensive planning by statesmen. The first was to do with savings and investment, the second with currency and credit. I will quote (as Mr. Harrod does not) what he wrote about the third. "The time has already come when each country needs a considered national policy about what size of Population, whether larger or smaller than at present or the same, is most expedient. And having settled this policy, we must take steps to carry it into operation. The time may arrive when the community as a whole must pay attention to the innate qualities as well as the mere numbers of its future members." Eleven years later Keynes gave the *Eugenics Society's* Galton Lecture on the subject of "The Economic Consequences of a Declining Population." He was afraid of a too rapidly declining population, but believed that the standard of life could be raised without sacrifice of our social traditions if the decline were to be slow.

Of Keynes' work in preparing governments to deal internationally with the financial disequilibrium that the second world war was leading to Mr. Harrod has

much to say. Keynes' own plans were whittled down, but "Marshall Aid was a reaffirmation of the principle in different circumstances." For his services to his country as a negotiator he was made a peer. He died younger than he should have done, leaving a widow—the brilliant and charming Russian lady and former ballerina Lydia Lopokova.

PAUL BLOOMFIELD.

## ECOLOGY

**Allee, W. C., Emerson, A. E., Park, O., Park, T. and Schmidt, K. P.** *Principles of Animal Ecology*. Philadelphia and London, 1949. W. B. Saunders & Co. Pp. 837, 263 text figures and photographs. Price 70s.

THE authorship and the volume of this book are proof of its worth and of its width. But the verbosity, which seems to flow as it were from the combination of Germanic and American influences, will go far towards stultifying the objective of the authors. Bulk and price alike may dissuade an important proportion of those who would appreciate the essence of the wisdom of the five authors. Surely effective distillation by the authors is more suitable than surfeit of the reader, more particularly in a field whose purely descriptive phase is at last passing.

To eugenists the great value of this book lies in its third section, "Population" (173 pages), where the broad outlook of the ecologist offers much, both in fact and in stimulation, to the human demographer. Man is but one of many species, and the study of man's population is rendered difficult by two particular factors, the first that the age at sexual maturity is so high that few generations can be directly viewed by one worker, and the second that experiment is barred. All the more important, then, that the human demographer should keep closely in touch with those who study the populations of species which are more amenable to investigation. This book provides the opportunity, and the references are copious.

G. C. L. BERTRAM.